Applicants:

Kenichiro Kosai et al

Serial No.

10/584,109 June 22, 2006

Filed Page

2 of 11

## **AMENDMENTS TO THE CLAIMS**

This listing of claims replaces all prior versions and listings of claims in the application:

Attorney Docket No.: 55801-003US1

Client Ref. No.: PCT04TL2

## Listing of claims:

- 1. (Currently Amended) A drug for preventing or treating a heart disease, comprising an expression vector containing a CD9 gene as the active ingredient and a pharmaceutically acceptable auxiliary or carrier.
- 2. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the heart disease is a disease causative of heart failure.
- 3. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the heart disease is a ischemic heart disease.
- 4. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 3, wherein the ischemic heart disease is myocardial infarction.
- 5. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the heart disease includes one or more of cardiomyopathy, hypertensive heart diseases, valvular disease, congenital heart diseases and myocarditis.
- 6. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the heart disease is arrhythmia.
- 7. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 6, wherein the arrhythmia is tachyarrhythmia.
- 8. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 7, wherein the tachyarrhythmia is superventricular arrhythmia and/or ventricular arrhythmia.

Applicants : Kenichiro Kosai et al Attorney Docket No.: 55801-003US1

Client Ref. No.: PCT04TL2

Serial No. : 10/584,109 Filed : June 22, 2006

Filed : June 22, 2006 Page : 3 of 11

(ARVD, ARVC).

9. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 6, wherein the heart disease is one or more of WPW syndrome, long QT syndrome, Brugada syndrome, and arrhythmia-inducing right ventricular dysplasia

- 10. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the heart disease is associated with cardiac hypertrophy and/or tachycardia.
- 11. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 10, wherein cardiac hypertrophy or tachycardia is caused by at least one of HB-EGF (heparin binding epidermal growth factor), HGF (hepatocyte growth factor) or angiotensin 2.
- 12. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 1, wherein the expression vector is a viral vector or a non-viral vector.
- 13. (Currently Amended) The drug for preventing or treating a heart disease according to Claim 12, wherein the viral vector is adenovirus, adeno-associated virus, retrovirus, herpesvirus, herpes simplex virus, lentivirus, Sendai virus, poxvirus, poliovirus, symbis virus or vaccinia virus.
- 14. (Currently Amended) A method for preventing or treating a heart disease, comprising expressing a CD9 gene in the heart of a subject in need thereof, wherein the heart disease is characterized by myocardial infarction, hypertrophy, arrhythmia, or tachyacardia.
- 15. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the heart disease is a disease causative of heart failure.

Applicants:

Kenichiro Kosai et al

Serial No.

10/584,109

Filed

June 22, 2006

Page : 4 of 11

16. (Currently Amended) The method for preventing or treating a heart disease

Attorney Docket No.: 55801-003US1

Client Ref. No.: PCT04TL2

17. (Currently Amended) The method for preventing or treating a heart disease according to Claim 16, wherein the ischemic heart disease is myocardial infarction.

according to Claim 14, wherein the heart disease is a ischemic heart disease.

- 18. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the heart disease includes one or more of cardiomyopathy, hypertensive heart diseases, valvular disease, congenital heart diseases and myocarditis.
- 19. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the heart disease is arrhythmia.
- 20. (Currently Amended) The method for preventing or treating a heart disease according to Claim 19, wherein the arrhythmia is tachyarrhythmia.
- 21. (Currently Amended) The method for preventing or treating a heart disease according to Claim 20, wherein the tachyarrhythmia is superventricular arrhythmia and/or ventricular arrhythmia.
- 22. (Currently Amended) The method for preventing or treating a heart disease according to Claim 19, wherein the heart disease is one or more of WPW syndrome, long QT syndrome, Brugada syndrome, arrhythmia-inducing right ventricular dysplasia (ARVD, ARVC).
- 23. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the heart disease is associated with cardiac hypertrophy and/or tachycardia.
- 24. (Currently Amended) The method for preventing or treating a heart disease according to Claim 23, wherein cardiac hypertrophy or tachycardia is caused by at least

Applicants:

Kenichiro Kosai et al

Serial No. :

10/584,109 June 22, 2006

Filed : Page :

5 of 11

one of HB-EGF (heparin binding epidermal growth factor), HGF (hepatocyte growth factor) or angiotensin 2.

Attorney Docket No.: 55801-003US1

Client Ref. No.: PCT04TL2

- 25. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the prevention or treatment is carried out by a gene therapy of transferring a CD9 gene.
- 26. (Currently Amended) The method for preventing or treating a heart disease according to Claim 25, wherein the gene therapy comprises using a drug containing an expression vector containing a CD9 gene as the active ingredient.
- 27. (Currently Amended) The method for preventing or treating a heart disease according to Claim 14, wherein the prevention or treatment comprises administration of an expression inducing substance for expressing endogenous CD9.
- 28. (New) The method of claim 14, wherein the method comprises directly administering an adenoviral expression vector containing a sequence encoding a CD9 protein to a cardiac muscle in the heart.